REMARKS

This Amendment and Response is in reply to the Office Action of February 21, 2008. A two (2) month Petition for Extension of Time is filed concurrently herewith. Therefore, the time period for reply extends up to and includes July 21, 2008. Applicants wish to thank the Examiner for careful review and consideration of the present application.

Applicants respectfully request entry of the amendment and reconsideration of the claims. Claim 3 has been amended. New claim 17 has been added. No new matter has been entered and such amendments are fully supported by the specification and claims as originally files. Claims 12 – 16 have been canceled without prejudice or disclaimer. After entry of the amendment, claims 1 – 11 and 17 will be pending.

Claim Rejections Under 35 U.S.C. § 112

Claim 3 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner objects to the recitation in claim 3 of "preferably an ethylene-vinyltrimethoxysilane copolymer resin." Applicants respectfully traverse the rejection.

Nonetheless, solely to expedite prosecution, Claim 3 has been amended to delete "preferably an ethylene-vinylmethoxysilane copolymer resin" from the claim.

In view of the foregoing, reconsideration and withdrawal of the rejection of claim 3 under 35 U.S.C. § 112, second paragraph is requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 1 – 11 are rejected under 35 U.S.C 103(a) as being unpatentable over Borke et al (US 2005/0049343 A1) in view of Swarbrick et al. (US 4,117,195). Applicants respectfully traverse the rejection for at least the following reasons.

Borke et al. disclose polyethylene resins for wire and cable applications with high abrasion resistance. As the Examiner states in the Office Action on page 4 under paragraph 6, Borke et al. do not disclose a pipe made from the composition. Borke et al. disclose two resins. The first resin being a blend of bimodal HDPE with an ethylene-silane copolymer, the density of the copolymer being disclosed in Example 1 as 922.5 kg/m^3 (page 5, paragraph [0060]). The second resin is a silane **grafted** bimodal HDPE having a silane content of 0.1 to 20 wt% and a density of 940 to 960 kg/m^3 (page 2, paragraph [0024]).

Claim 1 of the present application provides pipes with improved pressure resistance. The objective may be achieved by using an ethylene-silane copolymer with a density of greater than 925 kg/m^3. The copolymer, as described in the application (e.g., at least at page 2 line 30) is the result of copolymerizing ethylene and silane monomer units and not by grafting silane units onto a polyethylene backbone. Borke et al. use a grafted bimodal HDPE, as described above. Borke et al. fails to teach or suggest both the copolymerized ethylene-silane copolymer and that the copolymers can be made into pipes.

Table 1 (page 8 of the present application) lists pressure test results for the blend of two polymers, polymer D and polymer M-1. This composition has a failure time of 0.7 hours in the pressure test. This blend is similar to the composition of the first blend disclosed by Borke et al. Therefore, the first blend disclosed by Borke et al. would not provide sufficient pressure resistance in accordance with disclosures of the present application.

Swarbrick et al. disclose silane **grafted** polyethylene for pipe, wire and cable applications. Swarbrick et al. discuss the advantages of grafting silane in a single extrusion step (*see* for example col. 1, ll 23 – 56). Swarbrick et al do not disclose any features relating to the pressure stability of the pipes made from grafted resins or disclose the density of the grafted

copolymer resin. Swarbrick et al. do disclose a commercially available polyethylene having a density of greater than 925 kg/m^3. However, the commercially available polyethylene contains carbon black and Swarbrick et al. explicitly state that the density in Example 16 of 930 kg/m^3 should be distinguished from the density of the base resin (col. 5, line 56). In sharp contrast, the density of the ethylene-silane copolymer of the present application, without additives such as carbon black, is claimed as greater than 925 kg/m^3.

Swarbrick et al. disclose a silane grafted LDPE which has a density below 925 kg/m^3. It is well known that LDPE contains a large amount of branches in the polymer chain. Borke et al. disclose both a bimodal HDPA blended with an ethylene-silane copolymer having a density of 922.5 kg/m^3 or a silane grafted HDPE (HDPE contain minimal branching; density from 940 of 960 kg/m^3). The compositions of Borke et al. further comprise large amounts of flame retardant. Therefore, considering the differences in the compositions, a person of skill in the art would not be motivated to combine the teachings of Borke et al. and Swarbrick to arrive at forming a pipe from the compositions of claim 1 of the present application.

Swarbrick et al. do not overcome the deficiencies of Borke et al. as stated above. Therefore, Borke et al. and Swarbrick et al. references, alone or in combination, neither teach nor suggest the presently claimed invention.

Because claims 2 – 11 depend either directly or indirectly from claim 1, Applicants submit that claims 2 – 11 are also in condition for allowance.

Claims 1 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keogh (US 4,707,520) in view of Swarbrick et al. (US 4,117,195) Applicants respectfully traverse the rejection for at least the following reasons.

Keogh discloses silane copolymers obtained by grafting or copolymerizing compositions for wire and cable applications. Keogh also discloses a lengthy list of polymers such as alkylene-alkyl acrylate copolymers (col. 4, line 36), ethylene/propylene, ethylene/butene and ethylene/hexane copolymers (no density given) and ethylene homo- or copolymers with a density

of 875 to 970 kg/m^3. Keogh does not disclose a pipe made from the compositions (page 6, first full paragraph, of the Office Action). Keogh does not disclose the density of an ethylene-silane copolymer obtained by the copolymerization of ethylene and silane monomer units. Keogh does not disclose, nor did Keogh recognize the importance of copolymerized ethylene-silane monomers with a density greater than 925 kg/m^3 for use in pipes.

Swarbrick et al. disclose an LDPE with a density of 922.5 kg/m^3 without ethyl-acrylate monomer units which may allow for grafting. Therefore, the resin disclosed by Swarbrick et al. is not similar to the resins disclosed in Keogh. Therefore, a person skilled in the art would not be motivated to combine the disclosures of Keogh in view of Swarbrick et al. to arrive at pipes of the present application.

Furthermore, Swarbrick et al. do not remedy the deficiencies of Keogh in that Swarbrick et al. do not recognize the importance of the density of the copolymerized ethylene-silane being greater than 925 kg/m^3. Therefore, Keogh and Swarbrick et al. references, alone or in combination, neither teach nor suggest the presently claimed invention.

Because claims 2 – 11 depend either directly or indirectly from claim 1, Applicants submit that claims 2 – 11 are also in condition for allowance.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a). Applicants do not otherwise concede the correctness of the rejections and reserve the right to make additional arguments as may be necessary.

Conclusion

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Please charge any additional fees or credit any overpayment to Merchant & Gould P.C., Deposit Account No. 13-2725.

Respectfully submitted,

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